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DEATH OF DAME CAROLINE HASLETT



*The portrait of Dame Caroline Haslett, by Sir
Gerald Kelly, R.A., presented to the Society in 1948*

It is with deep regret that we record the death, on 4th January, in Suffolk, of Dame Caroline Haslett, at the age of 61. Dame Caroline was elected a Fellow of the Society in 1934 and from 1941 until her retirement owing to ill-health

in 1955 was a Member of Council and a Vice-President. In October of this year her position as the first lady Member of Council was recognized by her election to Honorary Life Fellowship of the Society.

Caroline Harriet Haslett, D.B.E., J.P., was notable not only for the great distinction of her professional career, but for the breadth of her activities and the energy with which she pursued them. She began her career in the engineering industry with the Cochran Boiler Company, and from 1914 to 1918 worked in London and Annan, qualifying in both general and electrical engineering. In 1919 the Women's Engineering Society was formed, and she became its Secretary. Then, in 1924, she founded the Electrical Association for Women and in the following year the new Central Electricity Board provided funds for the Association to carry out an extensive national educational programme. One aspect of Dame Caroline's interests was reflected in the Caroline Haslett Trust, founded by the Association to provide scholarships and travelling fellowships for domestic science teachers, who with housewives and educationists are included in the Association's membership.

In 1931 her services were given public recognition by the conferment of the C.B.E., while in 1947 she was promoted D.B.E. In the same year she was named, by the Minister of Fuel and Power, a part-time member of the British Electricity Authority, which appointment may be said to have crowned her career.

Among Dame Caroline's many public activities were the presidency of the International Federation of Business and Professional Women, the vice-presidency of the Royal Society for the Prevention of Accidents, the chairmanship, in 1953, of the British Electrical Development Association, and membership of numerous committees. She was a member of Crawley New Town Development Corporation, from 1947 to 1955, and was the first woman to be made a Companion of the Institution of Electrical Engineers.

She founded and for many years edited *The Woman Engineer*, the journal of the Women's Engineering Society, and had been editor of *The Electrical Age*, *The Electrical Handbook for Women*, and *Household Electricity*, and papers and articles by her were published in many engineering and industrial journals.

On two occasions she lectured to the Society, in January, 1941, on 'Women in Industry', for which paper she was awarded a silver medal, and in April, 1947, on 'Electricity in the Home'.

Two of her former colleagues on the Council have sent brief tributes.

Miss Anna Zinkeisen writes:

To me Caroline had the simplicity of greatness, a rare quality that only surrounds those who have a complete understanding of humanity. She had gentleness and at the same time a charming sense of humour. Those who were privileged to have known so very dear and memorable a personality as Caroline Haslett were indeed honoured.

Sir Ernest Goodale writes:

It was with some apprehension that the Council nominated a lady for the first time to join that body in 1941, but this boldness was fully repaid because

it was Caroline Haslett who was elected to break the ice. She soon endeared herself to her fellow members and showed that a member of her sex had much to contribute to the work of the Council. Moreover, she made her contribution in such a practical and natural way that we were soon wondering why we had been so slow in taking what was, even in 1941, thought to be so radical a step.

We greatly missed her when ill-health prevented her regular attendance at meetings and deplore her passing when she had so much more to do for her sex and for her profession.

FORTHCOMING MEETINGS

WEDNESDAY, 23RD JANUARY, at 2.30 p.m. '*Children and Films*', by Miss Mary Field, O.B.E., M.A., Executive Officer, Children's Film Foundation, Ltd. Peter A. Le Neve Foster, a Treasurer of the Society, will preside (The Paper will be illustrated with films.)

TUESDAY, 29TH JANUARY, at 5.15 p.m. COMMONWEALTH SECTION. '*The Emergence of Afrikaans as a Literary Language*', by Roy Macnab, Cultural Attaché, Office of the High Commissioner for the Union of South Africa. T. Weever, Lit.D., Professor of Dutch Language and Literature, University of London, will preside. (Tea will be served from 4.30 p.m.)

WEDNESDAY, 30TH JANUARY, at 2.30 p.m. '*The Caravan and Its Impact on Society*', by W. M. Whiteman, M.A., Editor of *The Caravan*. Admiral Sir Noel Laurence, K.C.B., D.S.O., President, The National Caravan Council, will preside. (The Paper will be illustrated by episcopo.)

MONDAY, 4TH FEBRUARY, at 7.30 p.m. FILM EVENING. *Distant Neighbours; Harvest of the Forest; Shaped by Danish Hands; The Elephant will Never Forget.* (See separate notice overleaf.)

WEDNESDAY, 6TH FEBRUARY, at 2.30 p.m. CADMAN MEMORIAL LECTURE. '*Mining Education and Training*', by I. C. F. Statham, M.Eng., M.I.M.E., F.R.I.C.S., F.G.S., Emeritus Professor of Mining and Dean of Engineering, University of Sheffield, David Renton, T.D., Q.C., M.P., Parliamentary Secretary, Ministry of Fuel and Power, will preside.

TUESDAY, 12TH FEBRUARY, at 5.15 p.m. COMMONWEALTH SECTION. '*Housing and Building in the Commonwealth*', by G. A. Atkinson, B.A.(Arch.), A.R.I.B.A., Colonial Liaison Officer, Building Research Station, D.S.I.R., and Housing Adviser to the Colonial Office. Sir Hilton Poynton, K.C.M.G., Joint Deputy Under-Secretary of State, Colonial Office, will preside. (Tea will be served from 4.30 p.m.)

WEDNESDAY, 13TH FEBRUARY, at 2.30 p.m. '*The Development and Use of Glass Fibres*', by A. Hudson Davies, O.B.E., a Director of Fibreglass, Ltd. W. J. Worboys, B.Sc., D.Phil., Chairman, Council of Industrial Design, will preside.

SPECIAL GENERAL MEETING

The Council hereby gives notice that a Special General Meeting, for the purpose of amending Bye-Laws 50 and 51, will be held at the Society's House at 4 p.m. on Tuesday, 12th February, 1957.

(By Order of the Council)

KENNETH WILLIAM LUCKHURST,
Secretary.

Fuller information regarding the matters to be brought before the Society at the meeting will be given in the next issue of the *Journal*.

FILM EVENING

The third Film Evening of the Session will be held at the Society's House on Monday, 4th February, at 7.30 p.m., and the programme to be screened on that occasion is as follows:

Distant Neighbours
Harvest of the Forest
Shaped by Danish Hands
The Elephant will never forget

Distant Neighbours (32 minutes) is a new colour film produced by Greenpark for the British Petroleum Company. Its subject is the use of the smaller aeroplane in the service of people who live in the remoter places of the earth, and it is enlivened by a human, and at times a dramatic background. The film was made in the island of Barra in the Hebrides, the Canadian North-West and the Australian 'outback'. It will be introduced by its producer, Mr. Humphrey Swinger.

Harvest of the Forest, also a colour film, and produced for the Bowater Paper Corporation, deals with the production of paper, commencing with some fine sequences of tree-felling and logging in Newfoundland.

Shaped by Danish Hands (17 minutes) presents the work of Danish designers in many fields, including the porcelain and furniture industries. It includes some shots of Steen Eiler Rasmussen, Hon.R.D.I., who was appointed to the R.D.I. distinction in 1947, the year in which the film was made.

The Elephant will never forget (10 minutes) is an amusing film record of the scenes and celebrations on the occasion of the journey of the last tram in London a year or two ago.

Tickets are not required for this Film Evening and Fellows are invited to bring two guests. Light refreshments will be served in the Library afterwards.

REVISED LECTURE PROGRAMME

A supplement giving a revised programme of arrangements for the present Session is included in this issue of the *Journal*.

*PRESENTATION OF THE R.D.I. DIPLOMA AND
THE BICENTENARY MEDAL*

at a Special Meeting of the Society held on Thursday,

13th December, 1956, with

*Robert W. Holland, O.B.E., M.A., M.Sc., LL.D.,
Chairman of Council of the Society, in the Chair*

THE CHAIRMAN *first called on* MR. MILNER GRAY, *Master of the Faculty of Royal Designers for Industry, to introduce* MR. REYNOLDS STONE, C.B.E., *member-elect of the Faculty:*

THE MASTER: I have the honour to present to you to-day a single member-elect of the Faculty of Royal Designers for Industry—Mr. Reynolds Stone. This very able artist, although eminent in several fields of design, is nominated for this high distinction for his outstanding work as a letterer.

The best traditions of typography and type design, as well as of calligraphy, have formed the basis of his reputation, and his work has a quality that has rendered it eminently suitable for many of the requirements of industry and commerce. Earlier this year Mr. Reynolds Stone designed a new rendering of the Royal Arms for use by H.M. Stationery Office for Government printing; he is known to some of us for his design of the 'Minerva' type face and perhaps to a wider circle for his calligraphic treatment of the name 'Dolcis', which may be seen on the shop fronts of that well-known store.

Educated at Eton, and at Magdalene College, Cambridge, he became a pupil at the Cambridge University Press and it is of interest to recall that whilst there he won two R.S.A. prizes for title pages. He subsequently found employment in a country printing office, but eventually set up as a professional engraver in wood and stone. In this and in the character of his work he is a worthy successor to his friend, the late Eric Gill, of whom he is an avowed admirer and who was one of the first members of this Faculty.

His work is always distinguished, elegant, meticulous and impeccable: I have the greatest pleasure in welcoming and presenting to you Mr. Reynolds Stone.

THE CHAIRMAN *then presented the Diploma of Royal Designer for Industry to* MR. REYNOLDS STONE.

THE CHAIRMAN: The second purpose for which we are here is the presentation of the Bicentenary Medal of the Royal Society of Arts. A few years ago the Council of the Society became very conscious that, in this modern world, there is a class of persons which renders an extremely important service to the promotion of good design, but whose vital contribution has hitherto been very little recognized. I refer to those who, by their influence on industry, cause good design to be recognized as a major factor in industrial policy. With a view to securing the due recognition of the contribution which is rendered by such persons, the Council of the Society, in 1954, established a new medal, which

incidentally has a dual purpose, first to reward the persons of whom I have spoken and, secondly, to commemorate the Society's bicentenary.

This evening it is my privilege to hand to Dr. Worboys the third of these medals to be awarded by the Council. Dr. Worboys' eminence in the industrial world does not need to be emphasized. He has been, as you all know, a Director of Imperial Chemical Industries since 1948. He holds other distinguished appointments in the industrial field, but he has also found time, as a leading industrialist, to render a great service to the cause of good design through his membership since 1947, and his present Chairmanship, of the Council of Industrial Design. This year has seen the achievement by the Council of Industrial Design of the setting up of the Design Centre in London. This Centre was opened by our President on 27th April last and it provides a permanent but changing exhibition of selected examples of well-designed goods, and thereby ensures that the public have available to them at all times a guide to the best products of British industry. We are happy that the public response to this act of vision and courage on behalf of the Council of Industrial Design has ensured its permanent success, and I would like this presentation to Dr. Worboys to be interpreted as a tribute by the Council of this Society to this great achievement which owes so much to his leadership, the support of his Council, and the executive wisdom of his Director, Sir Gordon Russell, whom you will hear shortly.

I have the honour and privilege to present this medal to you, Dr. Worboys, which is richly deserved.

THE CHAIRMAN *then presented the Bicentenary Medal for 1956 to DR. W. J. WORBOYS.*

THE CHAIRMAN: The third and final purpose for which we are gathered here is to hear Sir Gordon Russell deliver the Annual Oration to the Faculty of Royal Designers for Industry.

The following Oration was then delivered:

THE DESIGNER'S STATUS IN INDUSTRY

by

SIR GORDON RUSSELL, C.B.E., M.C., R.D.I., F.S.I.A.,

*Past-Master of the Faculty of Royal
Designers for Industry, and Director
of the Council of Industrial Design*

Just twenty years ago, on Tuesday, 3rd November, 1936, to enable a statement to be made to the press, a dinner was held in this house, in which we are privileged to meet to-night. It was the first ever held here, which suggests an

exceptional message. Sir Henry McMahon, Chairman of Council of the Royal Society of Arts, then spoke of several matters which have since assumed very considerable importance. He said:

The Exhibition ['British Art in Industry' organized by the Society in association with the Royal Academy at Burlington House in 1935] was mainly responsible for the commencement of a widespread movement advocating the cause of art in industry—a movement which is still gathering impetus and in which the Board of Trade, through its Council for Art and Industry under the Chairmanship of Mr. Frank Pick, is still doing a great national service. Further, Lord Hambleden's Committee has just recommended in its report that the Royal College of Art should in future adopt as its main object the teaching of industrial art and its practical application.

To our Society itself it has brought home the fact that no recognition or distinction is available for designers, who through their great work for industry are deserving of a wide public recognition of their valuable services to their country.

If we look to the fine art world we see that those who come to prominence there obtain their reward in the very coveted distinction of an R.A. Why should not some similar distinction be conferred on those who come to prominence in industrial art? . . . the institution of an academic distinction of this kind can only serve to enhance the status of designers for industry, and thus be of great benefit to a cause which has been too long neglected in this respect.

This seems to me a most important statement, not only because it envisages the setting up of the Faculty of Royal Designers for Industry by the Society to enhance the designer's status but, even more, because it shows that the Society was at that time fully aware that other events must make their contribution to this objective. The improvement of their status may seem to some designers an end in itself. But it is both a means and an indication of progress if seen in perspective as part of the immense problem of raising the standard of design of things we all use every day. I therefore propose to take separately the subjects Sir Henry mentioned, to see what progress has been made since 1936.

First, the exhibition 'British Art in Industry' in 1935. Of this, he went on to say that:

It was financed entirely by Fellows of the Royal Society of Arts and was the first public industrial exhibition ever held in England where no payment for space was required from exhibitors, thus ensuring a free hand in the selection of designs without fear or favour.

This extremely important and wise decision was to some extent offset by the wish to exhibit nothing which had been shown elsewhere and the urge to employ painters who had little interest in technology. It was not realized that industries which had built up over the years their own methods of showing new models to dealers at trade exhibitions at the appropriate time of year, would be unlikely to view a radically different method with favour. To raise design standards it was essential to demonstrate that better designs could be sold. To accord industrially produced goods the prestige of displaying them to the public in a famous gallery whilst ensuring that they were not available in shops, did not indicate a realist approach. And the ruling also meant that the exhibition was bound to consist mainly of hand-made prototypes from the craft-based

industries rather than examples from those for which expensive tooling was necessary. Yet it was in the latter that improvement would have been most welcome, for these trades were catering for the mass market. Also it was not pointed out that, to make any impact, artists who aspired to become industrial designers must forget about 'art manufactures' and be prepared to take off their coats in the turmoil of factory and market place and earn the respect of their colleagues by joining a team on an equal footing.

Undoubtedly this selective exhibition, and the interesting one organized by the Design and Industries Association at Dorland Hall, which preceded it in 1933, had a powerful effect on all those concerned with industrial design which have followed them. The British Pavilion at Paris in 1937 had a gallery flavour, but after the war the lessons had been digested. The technique of display had greatly improved both in galleries and shops. Indeed, contact between the two, almost non-existent before the war, had crept in to the advantage of both. This was apparent in such post-war exhibitions as 'Britain Can Make It', 'Enterprise Scotland', 'Designers at Work', the Festival of Britain 1951, and the 'Exhibition of Exhibitions', which employed many able designers who had worked in both spheres.

As to the value of Mr. Pick's Committee, it may truly be said that this was one of the important formative influences in the Government's decision to set up the Council of Industrial Design in 1944, and so create a body which could co-ordinate activities in the field of industrial design. The close connection of these activities from their inception with the Board of Trade and not with some hypothetical Ministry of Fine Arts or Culture, was of supreme importance. Design was seen as something which affected men's day-to-day, matter-of-fact affairs: it was not some precious object to be put in a glass case and examined by scholars in a museum. It is interesting to note that Mr. Pick was consulted by the Society before the setting up of the Faculty of Royal Designers for Industry and his deep interest is attested by a series of letters in the Society's archives. Lord Hambleden's Committee likewise prepared the way for the complete reorganization of the Royal College of Art which has taken place since the war under Mr. Robin Darwin and has made it one of the foremost schools of industrial design in the world. Meantime, the Central School of Arts and Crafts, which has just celebrated its sixtieth anniversary, regional colleges and other schools of art have not been idle. Many of the latter have not only reached a high standard of teaching but have established close relations with local industries. It has been realized at last that one cannot prepare students to design for industry merely by teaching painting and craftwork, valuable as the stimulation of these continues to be, or, alternatively, by teaching technical subjects only.

Sir Henry's last point, the award of a distinction to industrial designers, presupposed the existence of a professional body from whose ranks they could be selected. The Society of Industrial Artists, which includes both commercial artists and industrial designers, had been founded in 1930 but was by no means fully representative of the profession in 1936. Since then its prestige has greatly increased and with some 1,300 members to-day it can and does speak for designers

as a whole. Its recognition by industry is due to its high standards of professional conduct and executive ability. No one has done more to guide the Society in its early days and to shape its policy than the present Master of the Faculty, Mr. Milner Gray. In fact, I think of him as the distinguished midwife of the S.I.A.

It will be seen that twenty years ago the stage was being set in many different ways for a great improvement in the designer's status. But meantime, let us look for a moment at how that complex organization known as British industry then set about designing goods. In different firms at least ten approaches were more or less common: there may have been others.

First, an imaginative attempt to solve the problem in all its aspects—the use to which the article will be put, its method of production, suitability of materials to be employed, quality of workmanship, how it will be sold, packed and serviced, and last, but by no means least important, the pleasure it will give in use. Seldom was all this achieved at one time. In fact, good designs nearly always arise by a striving for perfection over a considerable period, such as, for instance, in British bicycles and tennis racquets, where oddly enough the only detail out of tune is often the lettering of the maker's name. One could call this method of approach first-rate modern design.

Secondly, the imitating of this method, without realizing what the imaginative designer is trying to do. This I call modernist. We all know the speculative builder who 'went modern' overnight, flattened his roofs, put his windows at the angle of the house and fitted a flush front door with a spiky knocker that was unpleasant to hold. Meantime, the plan, which was seldom related to real living needs, remained exactly as before. The same thing is happening to-day in other trades, especially in furniture, so beware of confusing modern and modernist, both of which are often indiscriminately labelled 'contemporary'.

In the great depression of 1930 in America some firms discovered that the young profession of industrial design could become a powerful sales asset. This was a discovery to be welcomed. But when the advertising man, to force the pace, insisted on purely superficial styling for obsolescence he fostered a craze for novelty which has had lamentable results as far as real design improvement is concerned. The wish to give some individual quality to designs which were regarded as purely ephemeral and which would be forced on to the scrap heap at the earliest possible moment has led to such oddities as 'personalizing' them by a signature or name, in writing which would be a disgrace to an infant school. Appearance design is the description often applied to this method. It is an unfortunate term, leading engineers to believe that industrial designers are only concerned with what one sees, whereas what one sees is profoundly affected by what one does not see. A good sculptor is always aware of the bone structure.

Reproducing traditional designs was obviously an attractive method to many manufacturers for, whereas no designs cost much twenty years ago, these cost nothing. It is important to discriminate between old designs whose quality was seriously impaired by making them by machine, such as for instance Gothic and other carved furniture, and those in which beautiful shapes or printed patterns could still give great pleasure in use. I refer to some English floral

pattern textiles, pottery such as Wedgwood's Queen's Ware, wine glasses and tumblers, buckets and tools, which have not been out of production for more than a hundred years and still cannot be bettered.

Fifthly, there are caricatures of old designs, adapted by unimaginative hacks from beautiful originals. For example, in the furniture trade, anything with a double curved leg was labelled Queen Anne, anything with a bulbous leg was Elizabethan, or with a spiral leg Jacobean. To-day anything with a peg-leg is 'contemporary'. It would be interesting to know how a psychiatrist would explain this obsession with legs!

Then there are the bastards raised by the irregular mating of the caricatures of old designs with the imitations of modern ones. I will not expatiate on these flashy objects, which must be familiar to all of you. They attempt, like all members of the demi-monde, to make the best of both worlds—with their meretricious carving and bits of chromium plate. Let us turn to more solid stuff.

There is engineering design, which is nearly always sound and honest but often aesthetically weak, because visual appreciation of any kind has been crowded out of the engineer's curriculum—though it is coming back in Italy, Switzerland, and the United States at advanced schools such as the Massachusetts Institute of Technology. It seldom costs more to use a good shape instead of a bad one, good texture instead of bad. Good colour or combinations of colour cost no more to buy or apply than bad and the same applies to lettering. Trade marks are often a thorn in the designer's flesh—how many times have I been told proudly of the immense goodwill value of a trade mark which must have been designed by someone almost illiterate for a pound or so years ago and cannot now be altered, in spite of the fact that it ruins the appearance of good machines, good catalogues, good advertising.

Then there is flaunting, exuberant vulgarity. Do not despise this. It adds spice to life and is not to be confused with the shoddy vulgarity of soul so proudly displayed in the shop fronts of most of the multiple stores, with a few notable exceptions. I am thinking of the vulgarity of, say, the circus poster which is composed of lettering which can hardly be defended as such and yet gives me a delightful anticipatory feeling of sawdust, clowns, packed crowds and the muffled roar of lions. For its purpose it is an admirable notice and to me would be spoiled if set impeccably in such a lovely type as Gill's 'Perpetua'. The solid, honest, comfortable, cut-glass-and-mahogany vulgarity of the Victorian pub has so often been ruined by filthy contraptions in black glass and chromium plate.

Fashion designing is a very important side, without which life would be much the poorer. How it comes about that a pretty woman can wear almost any kind of hat delightfully, yet next year it somehow looks a trifle odd has always remained a mystery to me. Yet, quite apart from the fashion element, it does seem that there has been a very considerable improvement in the design of women's clothes. Fashion designing in more permanent things can of course, at times, degenerate into styling for obsolescence.

And lastly, we have always had with us the 'practical' man of business, who

plugs along in a ham way without realizing that the designing of goods presents any problem at all. Occasionally, he makes a sketch furtively of one of his competitor's articles in a shop window and hands it to his foreman who, however, normally carries on without such dubious aids.

Looking back to 1936 it is clear that greatly improved methods of training for designers, so as to bring them much more closely into contact with industry, were long overdue if their status was to be raised. But this would be of no avail unless manufacturers could be induced not only to employ them at higher salaries than were then customary for the ill-trained people coming forward, but to do so under conditions which would enable competent designers to give of their best. Even then the biggest hurdle lay ahead, for in many trades manufacturers could get nowhere without the support of independent distributors. The retailer, and sometimes the wholesaler too, would need to be convinced that there was a potential market for goods of much improved design. He would need to be persuaded to show them in their right context and his sales staff would have to be trained to explain them with knowledge and enthusiasm.

People can hardly be expected to demand something they have never seen, but on the other hand it is useless to imagine that the majority of the great British public will accept a new idea, especially one which affects conventionally accepted ways of living, the minute it is put forward. There is much to be said for loyalty to old friends. To get new ideas accepted as a necessary preliminary to raising design standards, stimulation of people's interest in the background of their lives was essential—interest in the countryside, towns, streets, houses, gardens, rooms, carpets, even pepper-pots. People must be encouraged to appreciate that this was not just a matter for experts: an enlightened and critical public had a vital part to play. Looking at a pepper-pot carefully might help one to look at a town, and anyway the important thing was to make up one's own mind after dispassionately weighing the facts and not blindly to accept guidance.

Are all the methods of designing I have mentioned still in use? Yes, and probably will be for some time to come, for there is something like two generations' difference in the thinking of the best and worst firms in any trade. But there has been a notable change in the *proportions* in which such design approaches will be found—the increase in good designing has been marked and is steadily mounting. The status of designers has certainly improved.

During the same period the Faculty of Royal Designers for Industry, with the active help and encouragement of its parent body and especially of the Royal Presidents of the Society, has acquired a personality of its own. The Faculty has been able to forward the cause of Industrial Designers as a whole in various ways: it has regarded this as its principal function from the beginning. It is inconceivable that the setting up of the Council of Industrial Design by the Board of Trade, the Festival of Britain 1951, the Coronation decorations whose high standard was set by the Ministry of Works, the establishment of The Design Centre in the Haymarket, the adoption of a design policy by the British Transport Commission, or the astonishing improvement in printing on the part of H.M. Stationery Office, could have taken place twenty years ago.

It is with pride that I can record that Royal Designers for Industry have had a hand in all these high spots, more frequently perhaps as advisers than as designers. The importance of such a role is seen very clearly in the last case, where the public owes a great debt to Past Master Sir Francis Meynell, not only for his skilful diagnosis and apt prescription, but for his reassuring bedside manner which captivated the patient.

Indeed, it seems that at this stage nothing could more rapidly raise the status of designers than for more of them to acquire such a broad education, such a wide knowledge of men and affairs, such patience and skill in diplomacy that they might follow this lead and, whilst practising a self-denying ordinance by giving up active designing, become creative advisers. British industry needs far more men of this type sitting on the boards of companies as design directors, for after all industry, commerce and Government are the new patrons. There is also, in my opinion, a need for several somewhat larger groups of design consultants who could handle the biggest projects, both from a research and design angle. An honorary R.D.I. in the United States, Mr. Walter Dorwin Teague, has not only been responsible for the interior design of the new *Boeing 707* jet aircraft, but the mock-up of it, which I saw recently in New York, was made by his organization. It was absolutely complete in every detail and cost some half-million dollars.

Every designer would be the better for taking a day off occasionally to become acquainted with sides of his firm's work with which he does not normally come in touch. No designer can hope to raise his status if he thinks purely in terms of design and every designer can do something by lecturing, broadcasting, writing, attending key committees and in other ways to make his point of view clear to his patrons. At present the burden of such work is borne by too small a band of devoted designers, partly because the significance of the patron in raising their status is at present greatly underestimated, even entirely unapprehended. But every designer should surely welcome, as I do, the decision of the Royal Society of Arts to persevere in its beneficent work by setting up in 1954 the Bicentenary Medal for patrons of good design. It is a matter of the greatest pleasure to me that on the occasion when I, as a Past Master of the Faculty, should have been asked to give the oration, Dr. Walter Worboys, Chairman of the Council of Industrial Design, should receive this medal. No one has done more, both in his own great company and during his nine years' service on the Council, to raise the status of the designer.

Whilst speaking of the patron, may I ask anyone who was not so fortunate as to hear Mr. Osman's admirable paper on the commissioning of works of art, to be sure to read it in the Society's *Journal* for 7th December, 1956? There is much in common in the commissioning of what are called works of fine and industrial art. In the long run both depend on the standard of æsthetic appreciation of the man in the street, to a greater extent to-day than ever before. When one remembers the furnishing of an average home thirty years ago, it seems quite reasonable that the Prince of Wales in butter at the Wembley Exhibition should have impressed itself on beholders as the most remarkable

piece of sculpture they had ever seen. How could one expect them to have a sympathy for the work of great artists such as Epstein, Picasso or Moore? Surely such sympathy must grow slowly and painfully out of a greater awareness of one's immediate surroundings, leading to a greater discrimination in the choice of the common things used every day. Most people either did not look at such things at all or considered they must inevitably be ugly. Until the artist, by devoted service to rather than futile criticism of the community, which of course includes himself, helps to make such discrimination possible, he will continue to be despised. In England no doubt the great artist, who has for long been suspect, will still be hated until the chasm between him and the common man has been bridged, and bridged it must be if western culture is to be reinvigorated. This is the role of the commercial artist, the industrial designer and the craftsman. Their status will depend on the integrity with which it is carried out.

I feel sure that the profession will not fail to realize that growing prestige carries with it great responsibilities and will so willingly accept these as to justify the faith which has been generously shown over the years by this ancient and honourable Society. Its bursaries, for instance, have greatly encouraged design students and have enabled many of them to travel overseas; in each series of winter lectures there has been, in recent years, at least one touching on some particular aspect of design; the Chairman, Dr. Robert Holland, chose the subject of 'Whither Design' for his inaugural address a few weeks ago and put forward some very interesting educational ideas; the Society's exhibition of design in medals from many countries created much interest last year; and in choosing such things as its own Chairman's badge the Society consulted a designer of rare distinction, Professor Robert Goodden, R.D.I. Such examples of the creation of opportunities by patrons, whoever they may be, are indeed encouraging. But to seize them and exploit them in the best sense this young and virile profession will need men and women of high calibre, well trained and wise, with many and varied interests. They will realize that they owe a duty not only to the manufacturers who make the goods they design but to the public who use them.

In my opinion, the status of designers will be determined by designers themselves. At the moment a golden opportunity to raise it is before them. But it will call for much hard work and there are no short cuts. It means raising the quality, including design in its widest sense, of all industrial products, bringing the artist in many different ways back into the main stream of life from which he has been absent too long, to our and his great loss. This will not only improve the standard of living of every man, woman and child in this country, but it will enhance our prestige abroad and thus, to our advantage, profoundly affect our competitive position in the markets of the world.

THE CHAIRMAN *then called upon* SIR ERNEST GOODALE, C.B.E., M.C., *a Vice-President of the Society, to propose a vote of thanks to* SIR GORDON RUSSELL.

SIR ERNEST GOODALE: It is indeed a great privilege for me to-night to offer the

thanks of this gathering to Sir Gordon Russell for giving us such an inspiring Oration. Looking back, it is quite a thrill to me, because I may be the only member in this room who was a member of the original Council for Art and Industry and to see the work which has gone on since that Committee functioned and the development of good design which has taken place since those days twenty years ago is, I think, very encouraging—but where should we have been without Sir Gordon in this progress? He was one of the pioneers and has been a great leader in showing us the way in which we should go and the present success of the Council of Industrial Design, in my humble judgment, ably led as it has been by the three Chairmen who have graced the chair, is due in very large measure indeed to the work of Sir Gordon himself. I think he has made a great sacrifice in his pioneer work at the Council of Industrial Design. I think we should recognize that to-night, because as an industrialist I think he would have made more money for himself in the world of industry; but like a true pioneer he has applied himself with great devotion to the cause of industrial design and the standing which it has reached to-day is, I repeat, in very large measure due to Sir Gordon's great ability, his charm of manner and his profound knowledge of the subject.

May I, on behalf of us all, thank Sir Gordon and propose we accord to him a very warm vote of thanks for coming here to-night and giving us the Oration which he has delivered?

The vote of thanks was carried with acclamation, and the meeting then ended.

QUACKS THROUGH THE AGES

A paper by

A. DICKSON WRIGHT, M.S., M.B., F.R.C.S.,

*Immediate Past-President, The Medical Society of
London, read to the Society on Wednesday,
21st November, 1956, with Sir Charles Dodds,
M.V.O., M.D., D.Sc., F.R.C.P., F.R.S.,
Courtauld Professor of Biochemistry, University
of London at Middlesex Hospital Medical School,
in the Chair*

THE CHAIRMAN: I am not sure how I should regard my presence in the chair to-day, for when I was invited to take the chair for my old friend, Mr. Dickson Wright, he said he could think of no more suitable person to occupy this position. Well, that is rather a double-handed one, when you think of the title 'Quacks through the Ages'. I feel that I can at least get my own back by saying that there is no one more suitable to speak on this subject than our lecturer to-day! But those of us who have the pleasure and privilege of knowing Mr. Dickson Wright know that we have, in him, a very remarkable person: a very distinguished surgeon, most famous in his own particular field, and also a great student of history and a medical historian of great reputation. In addition to that, he combines perhaps one of the astutest minds and wit present in the City of London. So without further ado I will, like all good chairmen, make full use of my chair and now call upon Mr. Dickson Wright to read his paper.

The following paper, which was illustrated with lantern slides, was then read:

THE PAPER

All through the ages in this healing art there has existed orthodox medicine at one extreme with quackery at the other. With advancing knowledge the gap has widened. Furthermore, what was orthodoxy in one age would be at the other end of the scale a century later, owing to advancing knowledge.

At present, as always, there is a gradual transition between the extremes of orthodox medicine and full-blooded quackery. Some fully qualified doctors develop eccentric ideas out of step with their professional brethren and wed the whole of their treatments to one panacea, such as rejuvenating serum; others embrace homœopathy, osteopathy or electronic medicine (Abram's box) and yet all still remain within the profession. After these come the unqualified healers sometimes mingled with religion. Beyond these come organized cults such as naturopathy, osteopathy and chiropraxy, having schools with a two-year course of training and degrees. Finally, there are the people with which I wish to deal, the free-lance quacks with no training of any kind and never an organization backing them.

There has always been a great fascination for these people in the minds of the public. The element of mystery and witchcraft about their administrations has a powerful effect on many who think of them as possessing a powerful secret remedy unknown to a jealous profession, who boycotts them for having it. Incidentally, a fair definition of a quack would be one who sells a secret remedy. Education of the public does not reduce quackery, it only seems to increase it and highly educated countries like Germany, France and the United States have more than the simpler civilizations. France is said to possess more than any other country in the world. Quackery will certainly persist till medicine has a definite cure for every ailment and cancer and rheumatism are laid by the ears. Even then it will probably persist, because of the great hold that their mystery has on the imagination of certain people and because it will probably claim that its cures are quicker and more painless than by orthodox methods.

Quackery goes back as far as civilization. The story of Tobias in the Apocrypha using the liver of a fish to neutralize the lethal qualities of his bride, and the bile of the fish to cure the sight of his father who lost his sight as a result of the unwelcome attention of an overflying sparrow, has an aura of quackery. The defenders of quackery would say that if we had listened to Tobias, the liver cure of anaemia and rickets would have been discovered sooner, and would point out that Cortisone is made from bile.

The first acts of Parliament dealing with Quackery were in 1511 and 1518, during the reign Henry VIII. The College of Physicians, newly created, was given power to suppress 'Quacks and imposters', 'who, using sorcery and witchcraft apply such medicines unto the disease as to be noxious and nothing meet to the grievous hurt and damage and destruction of many of the King's Liege people'. Under this act many were fined, imprisoned, pilloried and even hanged for their activities. It was, however, very difficult to bring them to book for just the same reason as obtains in the present day, because some grateful patient of the church, the nobility or with political influence would come forward and champion the prisoner and secure his release.

Oberndorf, writing in 1602, gave a vivid description:

The whol Rable of these quack-saluers are of a base wit and perverse. They for the most part are the abject and sordidous scumme and refuse of the people, who having run away from their trades and occupations learne in a corner to get their livings by killing men, and if we plucke off their vizards wherein these maskers do march and bring them to the light, which like owls they cannot abide, they will appear to be runagate Jews, the Cut-throats and robbers of Christians, slow-bellied monkes who have made their escape from their cloysters, simonia call and perjured shavelings, shifting and outcast Pettifoggers, Trasonical Chymists, lightheaded and trivial Druggers and Apothecaries, sunshunning nightbirds and corner-creepers, dull-pated and base Mechanickes, Stage players, Juglers, Pedlers, Prittle-pratling barbers, filthie Grasiers, curious bath keepers, common shifters, cogging cavaliers, lazy clowns, toothless and tatling old wives, chattering char-women, long-tongued mid-wives, Dog-leeches and such like baggage.

In the reign of James I, action against imposters was intensified, and the most famous of them, one John Lambe, spent over twenty years of his life in prison

because of his activities. It seems that even while in prison he conducted a thriving practice and took quite large fees from the governor of Newgate for curing his complaints. His most famous patient was the Duke of Buckingham, and when that gentlemen fell out of favour, Lambe was beaten to death by a London mob; a few weeks later Buckingham was assassinated in Portsmouth by John Felton.

The Kings and Queens of England after Edward VI also partook of quackery in the practice of touching for the King's Evil or scrofula (tuberculosis). This was a royal prerogative and the touchees received at the time special coins, 'touch pieces', possibly to recoup them for any disappointment. Cromwell, although he fell into many regal ways when dictatorship went to his head, never arrogated to himself this royal virtue. His failure to do so was remedied by one Valentine Greatstrakes, who claiming Royal blood by the usual devious route, touched for the King's Evil, touching his patients for money also, and giving away no coinage. The last monarch to touch for tuberculosis was Queen Anne and one of her 'patients' was Doctor Johnson, who had tubercular glands in the neck.

A famous quack of Charles II's time was Tom Saffold, who extolled his pills and elixirs in witty verses which were distributed along Cheapside, Fleet Street, Strand and Whitehall by sandwich men to all who passed by. He was not prosecuted, probably the humour of his verses saved him, and in May, 1691, Tom sickened, refused all medical aid except his own pills, and duly died. Humorous ballads were written after his death of this type:

Sometimes perhaps the Guilded pill prevails
But if that fail, the Dead can tell no tales.
What if his medicines thousands Lives should spill?
Hangmen and Quacks are authorized to Kill.

and his epitaph ran:

For when sick refused all Doctor's aid
And only to his pills devotion paid
Yet it was surely a most sad disaster
The Sawcy Pills at last should Kill Their Master.

The practice of Tom Saffold passed to John Case, who took over his premises and the magic apparatus therein and inscribed on the door the lines:

Within this place
Lives Doctor Case.

This couplet according to Addison made more money for Case than all his poems did for Dryden. Case very slyly let people think he worked through Tom Saffold's departed spirit and described himself as a 'Spagyrick Physician'. A story is told of this agreeable ruffian that he once dined with the great Radcliffe, physician to Queen Anne, and when Radcliffe gave the toast 'Here is to all the fools, your patients, brother Case' came the retort, 'Let me have all the fools and you are welcome to the rest of the practice'. One could imagine a similar conversation in this year of grace.

About the time of Case appeared the first quack to appear on the variety stage, one Dr. Pontaeus, who had a universal antidote 'Orvietan' and a panacea

for wounds, the 'Green Salve'. To prove the latter he would exhibit a large red-hot ladle of molten lead on the stage into which his assistant plunged his hands and withdrew them bright red from burns; the Green Salve was applied and next day his hands were normal; only a privileged few knew that the ladle was painted red, the molten lead was mercury and the burns vermilion powder.

Astrology and quackery were closely associated in the Middle Ages, although astrology now is greatly divorced from medicine and confined to political and matrimonial forecasts. Even to-day, I am sometimes asked to operate on days when the stars are favourable and I readily accede, it helps to spread the responsibility. In the seventeenth and eighteenth centuries there were many famous astrologers. Lilly, Partridge, Sandford and others drove a tremendous trade for those who wanted prognostications of the future or cure of their diseases. A favourite device in those days of keen competition and poor communications was for the death of one to be announced by the others; famous writers would join in the fun and Swift thus wrote an elegy on the death of the still living Mr. Partridge, who as it appears combined astrology, shoe making and quackery:

Here, five feet deep lies on his back
A cobbler, star-monger and quack
Who to the Stars in pure good will,
Does to his best look upward still.
Weep all you customers that use
His pills, his almanacks or shoes,
Step to his grave but once a week;
This earth which bears his body's print,
You'll find has so much virtue in't
That I durst pawn my ears, 'twill tell,
What e'er concerns you full as well,
In physick, stolen goods or Love,
As he himself could, when above.

Mountebanks were quack medicine vendors of the noisy ostentatious type, who made amusing speeches extolling their cure and referring to the orthodoxy in appalling terms such as 'Tag-rag-Assifetide-Glister-pipe Doctors. Their speeches were made more entertaining by the antics of a clown called a Merry Andrew or Zany, and frequently a monkey or blasphemous parrot, was also a feature of the entertainment. A typical address of this most entertaining type of quack was that of one H. Hill of Black-fryers:

See Sirs, See here (he cries), A Doctor rare, who travels much at home, here take my pills, I cure all Ills, past present and to come; The Cramp, The Stitch, The Squirt, The Itch, The Gout, The Stone, The Pox; The Mulligrubs, the Bonny Scrubs and all Pandora's Box. Thousands I have dissected, Thousands new erected, and such cures effected as none e'er can tell, let the Palsie shake ye, let the Chollick rack ye, let the Crinkums break ye, let the Murrain take ye; Take this and you are well. Come wits so keen, devou'd with spleen; come Beaus who sprained your backs, great Belly'd maids, old Foundered Jades, and pepper's vizard cracks. I soon remove the pains of Love, and cure the Love-sick maid; the Hot, the Cold, the Young, the Old, the Living and the Dead; I clear the Lass with wainscot Face and from Pimginets free, plump ladies red like Saracen's Head, with toaping Rattafia. This with

a jirk will do your Work, and scour you o're and o're, Read, Judge and Try,
and if you Die, never believe me more.

Charles II's reign was notorious for quacks of all kinds, because that king was rather partial to them and living the strenuous life that he did he was always in need of some kind of medical attention, official or unofficial. One most egregious quack was Cornelious à Tilbourn 'Sworn Chyrurgeon to King Charles II', who sold an antidote for all poisons and would cut for stone in the 'bladder of kidnies', the latter very doubtful; he sold artificial eyes and cured deafness (if curable). Later on he descended to the practice of oculist, taking off 'Pearls Pins Webs, Cataracts, both white and black and skins of all kinds, and gives immediate sight to those that are turned stone blind'. Later still, finding his practice waning and knowing how we British love medical foreigners, he changed his name to Tilborg and, newly arrived from Hamburg, he threw his net as wide as he could, announcing himself a High German Physician or Doctor, Oculist, Chirurgeon and *Rupture Master*. With such a wide range of achievements, it was little wonder that he became privileged by William and Mary also.

At this time there was a great sale of necklaces for teething children of peony wood and bags worn round the neck to prevent rickets; these have their modern equivalents in rheumatism bangles of Borneo seaweed, iodine lockets, and once I noticed in a patient's socks a copper plate for one heel and a zinc plate for the other, and the current generated kept off sciatica; and nowadays a great Stock Exchange tip for lumbago is a violin G string tied about one's middle. Modern quacks could learn still more from the past; one ingenious device used by a Doctor Tufts was to say that he had four new diseases not yet known to anyone but himself for which he had infallible cures, they were: 'The Strong Fives, the Moon Pall, the Marthambles and the Hockogrockle'. The device of charging very high prices for a medicine was utilized in those days; this is indulged in nowadays too in rejuvenating serums. One universal powder in Charles II's day cost £6 an ounce, equivalent to about £200 to-day.

Female quacks in the olden days dealing with general diseases, imitating men, hung out Red Cloths with coagulated stones taken out of the bodies of the female sex. They could not compete with the Mountebanks and their monkeys and zany so concentrated on sterility and 'in those cases to which Venus should misfortunately be wounded with a Scorponious Poyson by tampering with Fiery Mars, she by antidoets expels the poyson Jove-like though never so far gone'. They also offered beauty treatment and their handbills are little different from the advertisements in ladies' Journals of the present day, except for the claims made in the eradication of the ravages of smallpox and the frequent mention of 'wainscot face' and 'morphews'.

Certain of the prevailing diseases of ancient times produced their special quacks, scurvy was such a one, and a herb called scurvy-grass or spoonwort was greatly extolled; it is impossible to find out what this herb actually was, probably each vendor had his own herb. Great controversies were waged between these quacks, Bateman, Blagrove and the Sieur de Vermantes and their broadsheets about each other make the most entertaining reading.

Insanity (usually called swear and tear) produced another group of quacks. Lunatics were so badly treated in Bedlam that the fear of lunacy was very great and nostrums found a ready sale. Quack surgeons did a handsome trade, making an incision in the forehead and extracting from it a pebble which was palmed by the surgeon. There are pictures in the art galleries of the Prado in Madrid, and in Amsterdam, portraying this procedure.

The Great Plague of London produced another horde of plague quacks; this may have been due to the fact that the doctors left London during the visitation. One is probably more kindly disposed to this kind of quack than any other, if he stayed in London and braved the terrors of the time.

Quacks in eye complaints teemed during the reign of Queen Anne because she was a sufferer from sore eyes. The first was Sir Charles Read, the first quack to be knighted. He was an assiduous advertiser and treated Marlborough's soldiers gratis for nothing, and this was the account on which he was knighted. *The Oculist* was written about him, the first verse was:

Whilst Britain's sovereign Scales such worth has weighed
And Anne herself her smiling favours paid
That sacred hand does your fair chaplet twist
Great Readher own entitles oculist.

Queen Anne died, Read became sworn oculist in ordinary to George I, but he died soon after his accession. Nothing deterred, Lady Read who stepped into the breach and made just as rampageous claims as the late departed and offered to couch cataracts, remove wens and polypi, and so on. Read, who started life as a tailor, was ousted from Queen Anne's favour by one Roger Grant.

When Read and Grant were gone, they were succeeded by John Taylor (1702-1772) the most famous and colourful of all the eye quacks. He received no title from the Sovereign although he was oculist to two, so he styled himself the Chevalier John Taylor, Ophthalmiator, Pontifical, Imperial and Royal. He justified these latter titles by saying that he had treated Pope Benedict XIV, and the Kings of Poland, Denmark and Norway and Sweden. He also obtained from Frederick the Great a letter patent to be his Oculist, but as this was accompanied by an order to leave the country within six hours, it was not a great triumph and brought him little comfort. Frederick also added that if he touched the eyes of one of his subjects, he would string him up. It is hard to understand why Frederick bothered to give him a patent at all. Voltaire, who was living at Potsdam with the Emperor at this time, cynically observed that Frederick had driven from his dominions the only man in the world who could have opened his eyes.

Chevalier Taylor was the son of a surgeon in Norwich and he was trained at St. Thomas's Hospital under Cheselden, the great anatomist, surgeon and medical artist, who was incidentally an ophthalmologist and the discoverer of the operation of iridectomy, which is still a very valuable procedure. Taylor found life in Norwich as an orthodox general surgeon hard to bear and he longed to specialize. He therefore embarked upon his amazing career of itinerant quackery at the age of 24. It was very essential for operating oculists to be mobile

and freely itinerant and to refrain from revisiting previous haunts within twenty years, for fear that any of their blind victims were still alive. So for the next 45 years he travelled the world, reaching as far as Moscow and Teheran. He became facile in languages and his 55 books were published in many countries. At the age of 33, he was made oculist to George II and amongst his illustrious patients was Gibbon, who said that he had been tortured by Sloane, Meade, Ward and Chevalier Taylor. He claimed to have operated upon Bach in his eighty-eighth year and restored his sight. Actually, Bach became quite blind following the operation, which was done at the age of 61, and he died at the age of 65.

A more bombastic individual never existed than Chevalier Taylor. Whether in his innumerable lectures or his 55 books, he affects a style grandiloquent to the point of comedy. One famous speech to the students of Oxford University started thus:

The Eye, most illustrious sons of the muses, most lyric Oxonians, whose fame I have heard celebrated in all parts of the world. The Eye, that most amazing, that stupendous, that comprehending, incomprehensible, but miraculous organ, the Eye is the proteus of the passions, the herald of the mind, the interpreter of the heart and the window of the soul. The Eye has dominion over all things, the world was made for the Eye and the Eye for the world.

In his journeys, he met everyone of note in the scientific world and he claimed as his acquaintances Boer Haave, Haller, Morgagni, Winslow, Munro, Linnaeus, and of course the two Hunters. At the other extreme, he knew Metastasio, Jack Shepherd, Jonathan Wilde and naturally, the 'rabbit woman' of Guildford. He was proud of his languages and they must have been good, but his Latin was dubious. On one occasion he is said to have conversed two hours in Latin with Dr. Johnson. The Doctor was not impressed, because, following this interview, he described him 'as the most ignorant man I ever knew, but sprightly'. Further, he cited Taylor as an instance of 'how far impudence will carry ignorance'.

In keeping with his speeches, Chevalier Taylor affected a grand style and at what he called the 'crisis of his grandeur', he travelled with two coaches, each with six horses and ten servants and livery. The coaches were painted over with numerous eyes and bore the motto—*Qui dat Videre dat Vivere*. When he arrived in a town, he established himself in an Inn, in a suite of rooms, and there was to be seen a display of all his decorations, his glittering gold instruments, his testimonials, public addresses and his Royal Letters of Patent. His lectures were illustrated by models of the eye in enamel which he had purchased or had made during his Italian tour.

In spite of all his dishonesty, effrontery and mendacity, the Chevalier was thought by many to be a good operator and he made some contributions to the surgery of the eye. Some credit him, rather than Daviel, with the operation of cataract extraction and he was undoubtedly the first to do a tenotomy for squint. In his old age he became blind, but he remained peripatetic to the end and he died in one of the institutions which he so often ridiculed, namely a convent in Prague. His portrait was painted many times and he was the target for many lampoons and plays and operas. He figures prominently in Hogarth's

famous caricature *The Undertaker's Arms*. In that cartoon he is holding a physician's cane, on which an eye is painted and resting his head upon the shoulder of a very repulsive woman, who carries a human *humerus* in her hand.

This woman is crazy Sally Mapp, the bonesetter, who created a great stir in the early days of Hunter's life in London. It is strange to think that Chevalier Taylor with his studied elegance of phrase and his attitude of superiority, should have struck up a relation with this woman, whose appearance and language were equally vile. It is presumed that medically their paths did not cross and that they sent each other cases. Sally Mapp had a meteoric career as had her sister who was the more good looking and was the original Polly Peachum of *The Beggars Opera*, on whom the eyes of the Duke of Bolton rested too long, with the result that she became a duchess. Sally Mapp was born at Hindon, which is close to the fabulous Palace of Fonthill, built by William Beckford, the West Indian planter, and famous Lord Mayor, who snubbed George III. Her father's name was Wallin; he was an itinerant bonesetter and took Sally to act as announcer, at his booth, at fairs and race meetings in Wiltshire. When he was missing his daughter carried on and dealt with the cases and with her strong hands she did even better than her father. Accordingly, she soon left him and established her own practice under the banner of 'Cracked Sally—the One and Only Bone-setter'. Success brought her to London, she took a house at Epsom and did much there with the racing fraternity. While there she met and married a footman called Hil Mapp, but he soon decamped with some of her money.

Like Chevalier Taylor, she drove in magnificent state. Her coach and six horsea, with footmen and outriders, was festooned with the abandoned crutches of her cured patients. She came once a week to London, where she made straightway for the Grecian Coffee House, where she consulted and saw numerous cases. This coffee house was also used by Sir Hans Sloane for his private practice and prescribing. She did a roaring trade, poems and couplets about her abounded, and a play called 'Husband's Relief' concerned her. There was a Mrs. Mapp Plate at Epsom Races and a racehorse named Sally Mapp. On one occasion, when driving up the Old Kent Road, she was mistaken by the mob in her magnificent equipage for George II's unpopular Dutch mistress. When held up by the mob, she put her head out of the carriage in the manner of Nell Gwynne and announced with anything but a foreign accent . . . 'Damn your blood, don't you know me, I am Mrs. Mapp, the bonesetter'. She saw many famous patients, even the niece of Sir Hans Sloane was brought to her and as a consequence of this, Hans Sloane was one who championed her cause. She did so well that Chevalier Taylor and Ward parted company from her and they tried in a Court of Law to obtain an injunction to stop her encouraging the singing of a couplet which ran thus:

Forgot in the bustle are Taylor and Ward
For Mapp's all the cry and her fame's on record.

Sally's retort to this threat was to encourage another couplet, namely:

Quacks without art either blind or kill
But demonstrations prove that mine be all skill.

An affinity for alcohol ruined her career and the coach and horses no longer clattered up the Epsom road, she grew fatter and more loathsome and was swallowed up by Seven Dials and found her way from there to a pauper's grave.

In Hogarth's cartoon, resting on Sally Mapp's other shoulder, is a gentleman with a birth mark on the left side of his face. This is Joshua Ward, another leading quack of the period. He is again a strange partner for such a lady, because he came of a good Yorkshire family. He started life as a dry salter with his brother in Lower Thames Street and the business premises were burnt down with Ward escaping with a friend in their night attire by climbing



[By courtesy of the Royal College of Surgeons of England]

*Loving's portrait of Joshua Ward,
an early member of the Society of Arts*

over the adjoining roofs. From dry salting to politics was an easy step and he was returned as Member of Parliament for Marlborough, but he only sat in the House for five months, as it was found that his election was illegal and he was unseated. In point of fact, he did not receive a single vote. He was soon entangled in further scandal concerned with the South Sea Bubble and took refuge in France where he started the practice of quackery with the British colony in that country, especially in Dunkirk. His main interest was in the sale of pills and drops. In 1835 George II pardoned him and he returned to England and commenced practice immediately. His many distinguished patients included Horace Walpole, Chesterfield, Gibbon, General Churchill and Henry Fielding, who refers to him in his sad book *Voyage to Lisbon*. He secured royal patronage and his interview with George II was illuminating. The King had a swollen thumb which had been diagnosed as gout and which had resisted the attention of all the Royal physicians. As it happened, it was not gout but a very painful dislocation. Ward, before entering his presence, concealed in the palm of his hand some of the 'Headache Essence', which incidentally was the original of the camphor compound liniment used even to the present day. He asked the King to be allowed to examine the thumb and without much ado, he seized it roughly and gave it a mighty wrench which gave the King exquisite pain; recovering, the King cursed him for a rascal in German and such English as he could muster, and kicked Ward violently and petulantly in the shins. When he cooled off, Ward asked him to move his thumb and, to the King's amazement, he achieved it quite painlessly. Overjoyed, the King completely changed his attitude, embraced Ward, called him his Aesculapius and asked him to take a seat. Then he asked him to name any wish in the world and Ward modestly said he would not like anything for himself, but could his nephew, William Gansell of Peterborough, be given a commission in the Guards? This Gansell later became a general and gave his name to the Gansell pear. When the King importuned him to take a favour for himself, he humbly asked permission to drive his carriage through St. James's Park. This apparently was a very great privilege. The King not only granted this, but presented him with a coach and six horses in order that he could do so. The King also granted him a room at the King's Almonry at Whitehall for seeing his poor patients.

Ward also took some houses quite close to Buckingham Palace, or Buckingham House as it was called in those days, and he also had a surgery for poorer people in Threadneedle Street. Pursued everywhere by a torrent of jealous criticism from the doctors and from the lay, he nevertheless flourished and his practice grew and grew. Most of his remedies contained arsenic or antimony and strange to say, two of his prescriptions have lived to the present day, Friar's Balsam and the Compound Camphor Liniment. He was very conspicuous on account of a large port-wine stain of his face, affecting the lower two divisions of the fifth nerve on the left side. On account of this stain he was known as Spot Ward and he was recognized by all the street hawkers and crossing sweepers because of his disfigurement, which had some publicity value. He, however, was ashamed of it, although his two portraits by Loving and Bardwell show it very clearly.

Unable to find an artist to paint him without the mark, he hit upon the ingenious idea of having his statue carved in white marble. This was done by Carlini, who was paid 200 guineas a year until it was completed. Actually, he continued to receive the money until Ward's death, which was many years after the statue was completed. The statue now stands in the home of the Royal Society of Arts in the Adelphi. Apparently, Ward played some small part in the initiation of the Royal Society of Arts. Hogarth portrayed him in *The Undertaker's Arms*, as we have seen, and he is also shown in plate 5 of the *Harlot's Progress* in consultation with Missubin, another less known quack of the period. He was protected by a special decision of Parliament from being called before the Censors of the College of Physicians and he was exempted by name (a very special concession) in the Apothecaries Act of 1748.

Queen Caroline allowed him to demonstrate some of his cures before her in Kensington Palace. Honoured by the highest in the land in a very special way, he nevertheless did not desist from persistent bragging and continuing to be quite unscrupulous. He lived in great style, but he was kind to the poor, giving them his money, but neutralizing it by giving them his pills. Society ladies fawned upon him and helped him with his out-patients and distributed his pills and drops among the poor. When his death was nigh, he asked to be buried close to the altar rails of Westminster Abbey, but this did not eventuate and he was buried in a more remote part of the church, namely the Southern Cross, where the stone marking his grave can no longer be deciphered. It may have borne the epitaph 'Restorer of Health and Father of the Poor—a title he arrogated to himself during his life. The Abbey at the time was open to those who lived in the parish for burial purposes and Ward's Estate paid £54 19s. 6d. for the interment. The bill is still in existence and one notes that the hearse with six horses cost 24 shillings. So passed away this great public figure, probably known to all his contemporaries at the time, pompous and portentous, cartooned twice by Hogarth, mocked at by Pope, and cordially detested by our profession, but nevertheless extremely successful in his relations with the public.

Another woman quack of this period who had a great success was Joanna Stephens, who devised a remedy for stone, a curse of the period. The possessors of stones in the bladder and kidneys were numerous in that age, the over-indulgence of the gouty upper classes was often attended by this affliction. Their sufferings were terrible but fortunately intermittent and they presented an easy prey to this unprincipled lady. She soon had plenty of supporters for her remedy, members of the peerage, high dignitaries of the Church and Members of the House of Commons. Knowing the fate of Sally Mapp, it occurred to her, as her remedy was well received, to offer it to the public for the small matter of £5,000. A subscription list was opened at Drummonds Bank, but her rich friends in the Church, Peerage and Parliament only raised £1,356. She then took the matter up in Parliament and if the public of England was not gullible enough to find £5,000, their representatives in Parliament were. A suitable committee was formed, consisting mainly of subscribers to the fund in Drummond's Bank, but I am sorry to say that three of the leading surgeons of the

day, Cheselden, Caesar Hawkins and Sharpe joined the committee; apparently there is nothing the professor will not do for the Government. Included in the committee was also that remarkable individual, the scientific researcher, who was the vicar of Teddington, Stephen Hales. After investigating the remedy, seeing the patients and the stones they had passed, this committee reported favourably upon it, Parliament found £5,000 and the secret was revealed. The main constituents were egg shells, snail shells and soap.

A very theatrical person in the middle part of the eighteenth century was Martin Van Butchell, who claimed to be a student of John Hunter's. He was a born advertiser, without a trace of self-consciousness; he affected a long beard



[By courtesy of the Royal College of Surgeons of England

Martin Van Butchell

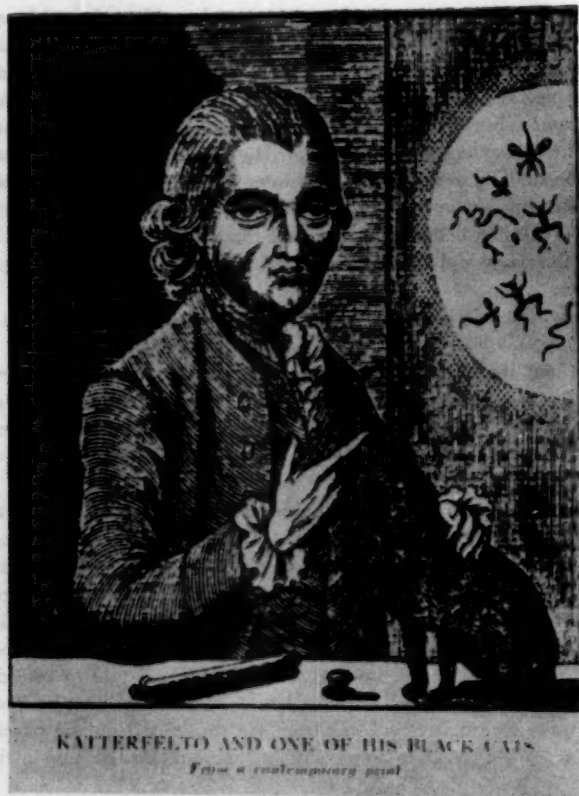
and rode a white pony in the park and to his place of work in Mount Street, carrying as he rode a stick made of human bone. The pony was painted differently each day, sometimes with large purple spots, sometimes it was painted all over a bright purple. At first he was a simple quack selling nostrums and claiming to cure anal *fistulae*, but later specialized on dentistry and especially on dentures, which he fitted over the *undrawn stumps*. His wife's death in 1775 was a great blow to him and he asked William Hunter and Cruikshank to embalm her. In a coffin, embedded in plaster of Paris, with a glass lid, she was kept in his waiting room and her complexion was very lifelike because of William Hunter's injections of carmine and various stuffings in the cheeks and the fitting of a pair of glass eyes.

When Van Butchell, some years later, again launched his vessel on the seas of matrimony, his new-found bride found the late wife a source of great humiliation and the corpse found its way into the collection of John Hunter and thence to the curio room in the College of Surgeons, where it was exhibited together with Van Butchell's peculiar walking stick. The body was eventually cremated on 11th May, 1940, as the result of an air raid and one of the strangest methods of advertising disappeared for ever.

Lesser lights amongst the quacks at this time were a group of German Jews, Bossi, Brodum, Solomon and Katterfelto. Dr. Bossi was one of the older school, who practised on an open-air stage in Covent Garden and he had that invaluable asset to a successful practice in this country, namely a very strong foreign accent. His footman, Brodum, put up a brass plate on his house in Grosvenor Square, calling himself Dr. Brodum. On this account he was called before Presidents and Censors of the College of Physicians and told to take down the plate and to cease taking fees. He refused to do this, saying that he had bought his degree quite legitimately in Aberdeen. He specialized on the psychological repercussions of sex treating them with a 'nervous cordial' and a 'botanical syrup'.

Dr. Solomon practised in the Midlands. He made a great mystery of his medicines which were made from gold and the Balm of Gilead. He carried a very imposing gold-headed cane to indicate that all his medicines contained gold. Madame Tussaud who was just starting her collection wished to include him in her waxworks and fortunately, in taking his facial impression, she omitted the hollow reeds which are usually stuck in the nostrils and nearly suffocated him. Too frightened for a repetition, he never appeared in her collection. He, like many another quack, affected a great style, coach and horses, magnificent house, and he entertained sumptuously. He was waylaid by some practical jokers in a country lane and made to consume a large volume of his balm of gold without doing himself any harm. Consequent upon this attack and the ridicule that arose from it, he left Liverpool and started to work in Birmingham. On his death, he was buried in the front garden of his own house.

Dr. Katterfelto, another of this small group, thrived on the great influenza epidemic of 1782. He sold a medicine known as Dr. Bato's Medicine. He made himself conspicuous by driving in a large caravan with numberless black cats to



*Dr. Katterfelto, who may have antedated Koch
and Pasteur in the microbic causation of disease*

match the first syllable of his name. He also gave scientific exhibitions in which he displayed insects by means of an instrument called the solar microscope. With this he demonstrated on a screen the insects which caused the recent influenza. He said that they would show as large as birds. He demonstrated the insects in a drop of pond water, he showed them from milk, vinegar, flour, blood, cheese and vegetables. Following on his lecture he gave instructions in cards, dice, billiards and E.O. tables. He was doing well when he suddenly disappeared, saying that he had been called up to take his commission by the Emperor of Prussia in the Death's Head Hussars.

Towards the end of the eighteenth century, America began to make itself felt in the field of quackery a foreign export which she has maintained to the present day. About this time, Benjamin Franklin's electrical discoveries were

causing a great stir and the two quacks who came across to us from America were greatly influenced by him. They were George Graham and Elijah Perkins.

George Graham was born in 1745 in Edinburgh; he was the son of a saddler. He became a student in the School of Medicine in Edinburgh. He emigrated at the age of 26 to America and he returned to England three years later, at first practising as an eye, ear and nose specialist in Bath. He then came to London, practising there and in Paris. He soon had famous patients, among them were Catharine Macaulay and the great Georgiana, Duchess of Devonshire and Lord and Lady Spencer. With the patronage of these people he soon became widely known. And with his ambition fired by his social contacts, he opened a palatial establishment in the Adelphi. It was called the Temple of Health and dedicated to the God Apollo. Inside, the display of brass and glass and scientific apparatus was awe inspiring. Electricity and magnetism were largely featured as a result of his connections with Benjamin Franklin. The *pièce de résistance* was his celestial bed made by a great craftsman, Denton; it was said to have cost £10,000. The bed contained three quarters of a ton of compound magnets continually pouring out magnetism in an ever-flowing circle and concealed lights glittered and instruments played romantic tunes and tubes exhaled all the stimulating perfumes of the Orient. His idea of the bed was to combat sterility and to ensure that children of the most perfect beauty could be begotten as a result of the magnetic waves which were the feature of the bed. Graham endeavoured to secure the services of O'Byrne, the Irish giant, for the opening services of the bed, but the giant would not rise to the occasion and endocrinologists will doubtless understand his reluctance. The fee for the lease of the bed for one night was 500 guineas. It will be recalled that, at a later date, John Hunter secured the skeleton of this giant for his museum and it can now be seen in the College of Surgeons. Graham made his money by the fees for this bed, by fees for prescriptions, by means of a magnetic crown, lowered over the head and by an electric chair. He also gave lectures with seats from five shillings to one shilling and there came sometimes as many as a thousand to listen to the atrocious nonsense which he poured out. Underneath this nonsense, ran an undercurrent of eroticism. The lecture was interspersed with recitations and choruses by unseen voices, and music from a hidden orchestra. The crowning point was reached when a previously curtained alcove opened and exposed completely unveiled, the rosy Goddess of Health, who was none other than Emma Lyon, later to become Lady Hamilton, the companion and comforter to Lord Nelson of the Nile. After an uproarious success, Graham took larger premises, Schomberg House in Pall Mall, but the pace was too fast, the new and better celestial bed was only new and, chased by creditors, he faded away into a peripatetic existence in the provinces. Later, religion and eugenics obsessed him, he became addicted to ether and had a psychosis resembling general paralysis of the insane. He passed away in Edinburgh, the town of his birth, at the age of 49. He will probably be remembered as the outstanding quack of all times, the liberties he took with human credulity will never be excelled.

He was followed by another American, Elijah Perkins, who devised his Electric Tractors which were made of brass and iron, which drew the disease out of the affected organ when it was stroked in a downward direction. George Washington bought a set for the use of himself and his family, and the American public followed dutifully in his trail. When the novelty died away in America, his son brought the tractors to England and strange to relate, he took over John Hunter's old house in Jermyn Street. The Electric Tractors were five guineas a pair, the Royal Society was impressed and accepted a pair and a Perkins Institute was started where the poor were treated by means of the Tractors. The Tractors were mentioned by Byron in his satire *English Bards and Scottish Reviewers*, and Gillray made an amusing cartoon showing their use in Rhinophyma. The vogue was exposed by Dr. Haycraft of Bath, who made imitations in wood which were so successful as almost to draw Haycraft into the vortex of empiricism. Perkins, after this, packed his bags, forgetting the unsold tractors, and sailed back to America, counting his profits and I am sure laughing heartily over human simplicity. There were other practitioners of this amusing profession, such as Louthborough, a good painter and a member of the Royal Academy. He practised his occult medicine in Chiswick and he really believed in himself. Because of this his skin was too thin and he lacked the ruggedness of Sally Mapp, for after being roughly handled by the crowd outside his Chiswick house, who were exhorted to do so by a disappointed patient, he dropped out and disappeared, it is thought to Switzerland, where he and his wife joined Cagliostro, an Italian healer, who was also in decline.

Mr. Patence was a dancing master, who combined this with quackery, he is said to have originated the expression 'worth a guinea a box'. Naïvely he stated in his pamphlet the following: 'To show its safety, sovereignty and efficacy, either when in health or sickness, Mr. Patence constantly takes his own pills to preserve his own health'. It is impossible to think of anything fairer than that.

As the century was drawing to a close, the birth of the patent medicine was manifest, quacks revelling in their powers, began to specialize on one nostrum and Nathaniel Godbold, a gingerbread baker, made a large fortune from his vegetable balsam. His house at Godalming cost £30,000 and in his gravestone in Godalming churchyard is nothing more or less than an advertisement for his balsam.

Swainson was another in Twickenham, who made Velno's vegetable syrup for lung conditions. He lived in a large domain in that place and developed a remarkably good botanical garden. These men showed the way to Holloway, Owbridge, Carter, Beecham, Sloane, and many yet to be born.

In more recent days, to describe a modern quack, the case of Dr. Abrams of Los Angeles, and his box can be considered. This box was sold for a large sum of money with the purchaser giving a declaration that it would never be opened and that he would return it yearly for overhaul at a fee. Some material from the patient was connected with the box by electric wires, which in turn were connected up with a boy who stood on an insulated table pointing north and south. The boy was then tapped and felt over his chest and stomach, and various signs

were elicited from which a diagnosis of the absent patient was made. The diagnosis was not sufficiently remunerative, so treatment was given to the patient by sending electric currents through the patient using the box in the circuit. It is strange to think that this treatment obtained the vogue that it did and was embraced by many qualified medical men. Eventually, the usual commission sat upon it and Lord Horder, in his typical way in summing up, said of the box that there might be something in it.

The quacks have their admirers and apologists but essentially they are those who choose short cuts to the curative art and avoid the trial and tribulation of the long and arduous training of medicine. It may be the case that occasionally they may have had original ideas which have been useful but, on the whole, their efforts have been too commercial to be scientific.

DISCUSSION

DR. T. F. COTTON: I gladly pay my tribute to my friend, not as an authority on this subject but as a friend of a great surgeon whom we see in a mood of relaxation. He is, in this respect, a legendary figure, and much alive. The other day I met a colleague in Cavendish Square and he said, referring to a man with a large practice in the W.1 area, with many of the qualifications of a quack, 'what has he got that we lack?' I said it was ever thus, there will always be quacks, yesterday, to-day and to-morrow, probably because there is a demand from the public which does not know the limitation of our medical knowledge, and the application of that knowledge. There is a danger sometimes, even in our profession, in that blurring of those boundaries which are unable to distinguish *post hoc* from *propter hoc* in the treatment of diseases. I have a vivid recollection of a dinner given to some distinguished consultants. The guest of honour was a well-known quack with a mission. He told us about the child with pneumonia who had a very high temperature and was dying. He applied his treatment and in a few hours the temperature was normal. We all knew that that was the natural course of the disease, the crisis of the pneumonia. That is the point, *post hoc, ergo propter hoc*. I enjoyed very much listening to this lecture.

MR. C. G. HANCOCK: Would the lecturer say something about the alchemists of the middle ages? Were they quacks or did they perhaps know more than we think about drugs which prolonged life for a longer time than was normal but not, as some alleged, for a thousand years?

THE LECTURER: I think if they had discovered anything of that nature we would know about it still. Somebody would have taken the drugs and would still be alive to tell us about the facts. They worked, in their simplicity, entirely on trying to turn everything into gold, as far as I know. They certainly worked away without any medical slant on their work at all. They were really out to manufacture gold out of brass. I think the whole period of alchemy was unproductive and a complete waste of human endeavour.

MISS E. NORRIS: As a lay person I would like to know if the lecturer thinks that a famous up-start of to-day could succeed like the fakes he told of in the past, who made a name simply by saying they could heal?

THE LECTURER: Yes, if he said it often enough and loud enough. It is a question of mind over matter.

THE CHAIRMAN: This is obviously such a fascinating subject that we could go on talking about it for a very long period. Of course, there is one very interesting point

which our lecturer noticed; that very often quacks are right for the wrong reason. One of the greatest examples, I suppose, was the introducer of homœopathy, who really succeeded because he did nothing at all. Even doing nothing was better than some of the legitimate treatments supplied by the legitimate profession. I am sure you would like me to thank our lecturer for the most fascinating glimpse of this very intricate subject. Obviously, he must have spent a great deal of time and trouble to give us this excellent paper and I am sure you would like to thank him in the usual way.

A vote of thanks to the Lecturer was carried with acclamation and the meeting then ended.

GENERAL NOTES

TOPHAM TROPHY COMPETITION

Prizes totalling over £500 are again offered by Messrs. Tophams Ltd., for the design and execution of a trophy to commemorate the 1957 Topham Trophy race. The Competition is open to all present and past art teachers and students at colleges and schools of art in the United Kingdom and Eire. The trophy should illustrate a theme related to horse-racing and jumping, and may be in any suitable material. Full particulars and entry forms can be obtained from the Secretary, Topham Trophy Competition, 34, Huskisson Street, Liverpool, 8. The closing date for the receipt of entries is 12th March, 1957.

CORRESPONDENCE

CALCINATION OF GYPSUM BY SOLAR ENERGY

From R. FITZMAURICE, B.Sc., M.I.C.E., M.Com.E., Hon.A.R.I.B.A., KASMERIS HOUSE, 25, 28th OCTOBER STREET, KYRENIA, P.O. BOX 21, CYPRUS.

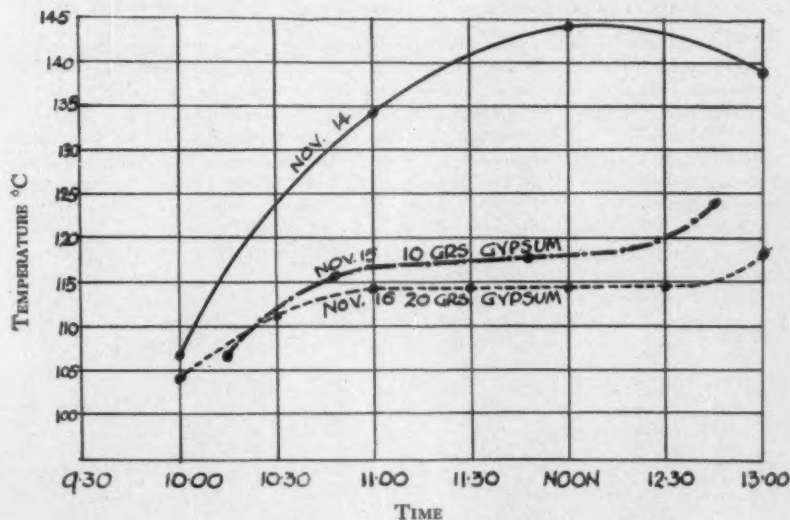
There has been considerable interest in the application of solar energy of recent years and an assessment of the present position was made at the World Symposium at Phoenix, Arizona, in the autumn of 1955. Many who attended the symposium will have come away with the impression that wide exploitation of solar energy is on the borderline of economic practicability, but still only on the borderline.

The main difficulty arises from the fact that simple methods of collection of solar energy, when converted to the infra-red region of radiation, yield a considerable amount of heat at a temperature rather too low for efficient utilization. More elaborate concentrating devices tend to become expensive because they have to keep track of the apparent path of the sun.

Successful application of solar energy is likely to be found when dealing with reactions which require considerable quantities of heat but at a relatively low temperature. One such reaction is the calcination of gypsum to Calcium Sulphate Hemihydrate (Plaster of Paris) where the dissociation temperature is below 130°C. The author found a promising opportunity for the development of a Plaster industry in a locality where there was a massive outcrop of gypsum in a climate where there is a superabundance of sunshine.

Some experiments were carried out in Cyprus taking advantage of three cloudless days on 14th, 15th and 16th November, 1956. These were days of light breeze and a shade temperature of 70-75°F. A sheet of tin-plate was blackened on its upper surface and insulated below by two inches of fibre glass. A thermocouple was attached to the underside of the tin-plate by adhesive tape and temperatures were recorded by a calibrated potentiometer. Two sheets of ordinary window glass were placed above the blackened tin-plate separated by an air space of half an inch and closed at the perimeter.

A metal tray containing a sample of gypsum, ground to pass a B.S. 100 sieve, was placed in the centre of the blackened tin-plate and fastened to it by means of adhesive plaster strip. The ratio of the area of the tray to the area of the blackened collector plate was 1 : 5. The results obtained on three consecutive days are shown on the graph shown below.



*Calcination of gypsum by solar energy;
flat plate collector under two sheets of glass*

The following are the salient points to be noted:

1. That a blackened metal plate, under two sheets of window glass, attained a temperature of 144°C . at noon in mid-November in Cyprus, at latitude 36°N .
2. That gypsum was readily dissociated to calcium sulphate hemihydrate within the temperature range attained by the collector used in this experiment, the end of the dissociation period for the size of sample clearly marked by a rise in temperature.
3. Within the limits of the temperature measurements in this experiment, the dissociation of the gypsum to hemihydrate appears to be complete in the temperature range $110^{\circ}\text{--}120^{\circ}\text{C}$.
4. The loss of weight of the samples on dissociation in this experiment was 16.6 per cent, which is slightly in excess of the theoretical figure of 15.6 per cent, and doubtless due to the presence of a small amount of free moisture.
5. The hemihydrate plaster resulting from the solar calcination had the appearance of a dead white Plaster of Paris of high purity. On mixing with water its initial setting time was three to four minutes with the normal evolution of heat associated with a Plaster of Paris. It set in a hard pat and made clean, sharp casts. There was not enough material to carry out standard tests, but there is no reason to suppose that the solar calcination, which was easily carried to completion, produces other than a normal high-grade Plaster of Paris.

FROM THE JOURNAL OF 1857

VOLUME V. 16th January, 1857

EXPLORATION

From a paper On British Honduras, Its History, Trade, and Natural Resources.

I have now placed before you a sketch or outline of the history, trade, and commercial capabilities of Honduras; and although my task has been imperfectly performed, you will, I am sure, feel satisfied that Honduras is deserving of more attention than has hitherto been bestowed upon it, and now I would beg permission to say—if the spirit of adventure animates you—that spirit which moved a Columbus, a Magellan, a Vasco de Gama, and a Cabot—do not now waste your energies and throw away your time amidst the icebergs and eternal snows of polar climes, in the solution of problems which have been already solved—do not wreck your fortunes and risk your lives in explorations, the only fruits of which will be the stranded boats, and whitened bones, of the gallant men who preceded you in that perilous path, but direct your exertions to the development of a country, which teems with every species of animal and vegetable wealth, by which you will not only benefit your selves, but contribute to the wants of your fellow man—by which you will not only be the architects of your own fortunes, but the benefactors of mankind.

Some Activities of Other Societies and Organizations

MEETINGS

MON. 21 JAN. Metallurgical Society, North East, at the Technical Institution, Middlesbrough. 7.15 p.m.
J. C. H. Booth: *The Industrial Development of Tees-side.*

TUES. 22 JAN. Road Transport Engineers, Institute of, at the Three Tuns Hotel, Durham City. 7 p.m.
W. T. Kay: *High Pressure and Syndromic Lubrication Systems.*
Wool Education Society, at the Royal Society of Arts, W.C.2. 7 p.m. Mrs. J. Koster: *For Two Pins—Fashion Designing for Hand Knitters.*

WED. 23 JAN. Analytical Chemistry, Society for, at 'The Feathers', Tudor Street, Strand, E.C.4. 6.30 p.m.
Discussion: *The Relationship between Statistics and Micro-biological Assay.*

I.C.I. Merseyside Scientific Society, at the I.C.I. Widnes Laboratory, Lancs. 5.15 p.m. Dr. B. W. Robinson: *The Physics of Music.*
Locomotive Engineers, Institution of, at 1 Birdcage Walk, S.W.1. 5.30 p.m. T. F. B. Simpson: *Diesel Locomotive Building and Maintenance.*

THURS. 24 JAN. Engineering Designers, Institution of, 38 Portland Place, W.1. 6.45 p.m. E. W. Greensmith: *The Demands of Inspection on Engineering Design.*

FRI. 25 JAN. Engineers, Junior Institution of, 14 Rochester Row, S.W.1. 7 p.m. E. S. Calvert: *The Mechanical Aim and Progress in Fire Fighting Equipment.*
Photographic Society, Royal, 16 Princes Gate, S.W.7. 7 p.m. E. Hillier: *Lighting the Film Set.*

SAT. 26 JAN. Analytical Chemistry, Society for, at the Engineer's Club, Albert Square, Manchester. 2.15 p.m. H. N. Wilson: *Recent Work on the Analysis of Fertilisers.*
Horniman Museum, London Road, S.E.23. 3.30 p.m. P. O'Malley: *Clay and Shill.*
Mechanical Engineers, Institution of, 1 Birdcage Walk, S.W.1. 3 p.m. E. G. Sterland: *Some Highlights in the History of Mechanical Engineering.*

MON. 28 JAN. Geographical Society, Royal, Kensington Gore, S.W.7. 8.30 p.m. Lieut.-Col. G. E. Wheeler: *Recent Developments in Soviet Central Asia.*

TUES. 29 JAN. Road Transport Engineers, Institute of, at the Victoria and Station Hotel, Preston. 7.30 p.m.

P. A. Phillips: *Gas Turbine Development for Road Transport.*

WED. 30 JAN. British Decorators and Interior Designers, Incorporated Institute of, at the Royal Society for the Promotion of Health, 90 Buckingham Palace Road, S.W.1. 6.30 p.m. E. Hollamby: *Architecture and the Applied Arts in Interior Decoration.*
British Foundrymen, Institute of, at the Constitutional Club, Northumberland Avenue, W.C.2. 7.30 p.m. C. R. van der Ben: *High-duty Iron Castings Production.*

Folk-Lore Society, at the University College, Gower Street, W.C.1. 7.30 p.m. Dr. K. A. Sinnhuber: *Some Geographical Aspects of Folklore.*
Radio Engineers, British Institution of, at the London School of Hygiene, Keppel Street, W.C.1. 6.30 p.m. R. A. Lampitt and J. P. Hannifan: *A.m.-f.m. Battery operated Receivers.*

THURS. 31 JAN. Metals, Institute of, at the Engineering Centre, Stephenson Place, Birmingham. 6.30 p.m. Dr. J. C. Chaston: *Pure Metals.*

FRI. 1 FEB. Cosmetic Chemists of Great Britain, Society of, at the Royal Society of Arts, W.C.2. 7.30 p.m. I. Greenfield: *The Use of Polyvinylpyrrolidone in Cosmetics and Toilet Preparations.*
Engineers, Junior Institution of, 14 Rochester Row, S.W.1. 7 p.m. E. F. S. Clarke: *Trans-ocean Deep Sea Submerged Repeater Systems.*

SAT. 2 FEB. Chemical Engineers, Institution of, at the Midlands Institute, Paradise Street, Birmingham. 2.30 p.m. E. J. Eaton and R. Parkins: *Automatic Control of Continuous Distillation Plant.*
Horniman Museum, London Road, S.E.23. 3.30 p.m. Dr. K. Oakley: *Early Man's use of Fire.*
Interplanetary Society, British, at Caxton Hall, S.W.1. 6 p.m. Wing-Commander F. Latham: *Accelerations in Flight.*

OTHER ACTIVITIES

NOW UNTIL 27 JAN. (1) Imperial Institute, S.W.7. Florence Kassin: *New Contemporary Paintings;* (2) Whitechapel Art Gallery, High Street, E.1. Exhibition: *East End Academy 1956.*

NOW UNTIL 24 FEB. Science Museum, S.W.7. Special Exhibition: *300 Years of Pendulum Clocks.*